

CLAIMS

1. A device for use in a surgical procedure involving arthroplasty, the device including a bearing member at least partially received within a recess of a bone engaging member and a liner positioned at least partially between said bearing member and said bone engaging member to substantially cover at least one bone securing means of said bone engaging member.
2. The device of claim 1 wherein the bearing member has a first surface to receive a counter component of a joint and a second surface that is engageable with said liner and wherein the bone engaging member has a liner engaging surface and a bone engaging surface.
3. The device of claim 2 wherein the first surface of the bearing member comprises a relatively planar surface into which is formed an indent to receive a ball portion of a joint.
4. The device of claim 2 wherein the second surface of the bearing member forms a circumferential join with the first surface and extends away from said circumferential join to define a substantially hemispherical or frustoconical portion.
5. The device of claim 2 wherein the bone engaging member has a relatively planar surface into which is formed the recess, said recess defined by the liner engaging surface, said planar surface forming a rim around the recess.
6. The device of claim 1 wherein the at least one bone securing means of the bone engaging member comprises at least one screw hole to receive a screw for securing the bone engaging member to the bone of a patient.
7. The device of claim 5 wherein the liner substantially conforms with the contour of the liner engaging surface of the bone engaging member and covers the at least one screw hole of the bone engaging member.

8. The device of claim 7 wherein at least a portion of the liner extends beyond the liner engaging surface of the bone engaging member.
9. The device of claim 8 wherein said portion of the liner that extends beyond the liner engaging surface comprises a lip member that engages the rim of the bone engaging member.
10. The device of claim 6 wherein when the device is in use, the liner prevents the migration of wear debris to the bone via the at least one screw hole of the bone engaging member.
11. The device of claim 10 wherein when the device is in position within a patient, the liner also reduces relative movement between the bearing member and the bone engaging member thereby reducing the amount of wear debris produced as a result of said relative movement.
12. The device of claim 1 wherein the liner is made from a biocompatible material including titanium.
13. The device of claim 1 wherein the bearing member is made from a polyethylene or ceramic material.
14. The device of claim 1 wherein the bone engaging member is made from a metal or plastics material.
15. The device of claim 1 wherein the bone engaging member is made from a graded material including a functionally graded or biologically graded material, or reinforced hydroxyapatite.
16. The device of claim 15 wherein the bone engaging member is made from a functionally graded material that has one modulus of elasticity at a location adjacent the bone engaging surface and wherein the material progressively gets stiffer towards the liner engaging surface.

17. The device of claim 15 wherein the bone engaging member is made from a biologically graded material, wherein said material includes different dopings of bioactive material in different regions thereof.
18. The device of claim 1 wherein the liner has a diameter of less than 1mm and preferably less than 0.5mm.
19. A liner for an arthroplasty device, said liner at least partially positionable between a bearing member and a bone engaging member of the arthroplasty device to substantially cover at least one bone securing means of the bone engaging member.
20. The liner of claim 19 wherein said liner is positionable so as to cover at least one screw hole of the bone engaging member.
21. The liner of claim 19 wherein said liner is made from a biocompatible material including titanium.
22. The liner of claim 19 wherein said liner substantially conforms with a surface of the bone engaging member of an arthroplasty device.
23. The liner of claim 22 wherein said liner further includes at least one lip member that extends beyond said surface of the bone engaging member when the arthroplasty device is in use.
23. The liner of claim 19 said liner having a diameter of less than 1mm and preferably less than 0.5mm.
24. A method of inserting a device during an arthroplasty procedure, the device including a bearing member at least partially receivable within a recess of the bone engaging member and a liner positioned at least partially between said bearing member and said bone engaging member to substantially cover at least one bone securing means of the bone engaging member, said method comprising:
 - (a) positioning the bone engaging member within a suitably reamed portion of bone of a patient;

(b) fixing said bone engaging member to the bone of the patient via said at least one bone securing means;

(c) positioning the liner adjacent or in engagement with said bone engaging member;

(d) positioning the bearing member within the recess of the bone engaging member and securing the bearing member to the bone engaging member such that the liner is positioned therebetween.

25. The method of claim 24 wherein the liner is secured to a liner engaging surface of the bone engaging member prior to the positioning of the bearing member.

26. The method of claim 25 wherein the liner is cold welded to the bone engaging member.

27. The method of claim 24 wherein the at least one bone securing means comprises at least one screw hole.

28. The method of claim 27 wherein the bone engaging member is fixed to the bone of a patient by at least one screw.

29. The method of claim 28 wherein the liner is positioned such that it covers said at least one screw and screw hole.

30. The method of claim 24 wherein the bearing member is secured to the bone engaging member by press fit.

31. The method of claim 24 wherein the device replaces an acetabular portion of a joint including a hip joint of a patient.